

exemplary purchasing module in the preferred implementation shown in Figs. 1A-1C.

[0012] Fig. 3 is a block diagram showing certain details, including workflows, of an exemplary contract administration module in the preferred implementation shown in Figs. 1A-1C.

[0013] Fig. 4 is a block diagram showing certain details, including workflows, of an exemplary optimization module in the preferred implementation shown in Figs. 1A-1C.

[0014] Fig. 5 is a block diagram showing certain details, including workflows, of an exemplary scheduling module in the preferred implementation shown in Figs. 1A-1C.

[0015] Fig. 6 is a block diagram showing certain details, including workflows, of an exemplary tanker planning system (TPS) module in the preferred implementation shown in Figs. 1A-1C.

[0016] Fig. 7 is a block diagram showing certain details, including workflows, of an exemplary shipment management module in the preferred implementation shown in Figs. 1A-1C.

[0017] Fig. 8 is a block diagram showing certain details, including workflows, of an exemplary financial module in the preferred implementation shown in Figs. 1A-1C.

[0018] Fig. 9 is a block diagram showing certain details, including workflows, of an exemplary data warehouse module in the preferred implementation shown in Figs. 1A-1C.

[0019] Fig. 10 is a block diagram showing certain details, including workflows, of an exemplary provider management module in the preferred implementation shown in Figs. 1A-1C.

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[0020] Fig. 11 is a block diagram showing certain details, including workflows, of an exemplary regulations module in the preferred implementation shown in Figs. 1A-1C.

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[0029] Figs. 1A-1C is a connectivity diagram showing a preferred implementation of component modules making up the logistics system. Each one of the work process flows in Figs. 2-11 are blow-ups of the individual sections of Figs. 1A-1C showing the integration and interrelationship among the modules in the preferred implementation. (The perimeters of the modules are not shown in Figs. 1A-1C.) The shaded blocks are part of the logistics system and the white blocks represent the external business interests to which the logistics system is networked as explained above. The personnel blocks indicate user terminals at which manual input/output interface of various information is carried out. These user terminals may be of any configuration and connect to the logistics system. Preferably, they are Internet-enabled devices capable of receiving data in the formats utilized by the logistics system, such as an XML format. These terminals need not be employees of the business interest but may instead be, for example, a third party acting as an agent for the business interest. The non-shipping client's personnel block represent client who are seeking only information (i.e., shipping rates or data reports/data mining) prior to or instead of shipping products. (See, for example, Fig. 30 in the provisional application). Although labeled as logistics provider in Figs. 1A-1C, these blocks refer to carriers running LMS or similar software applications.

[0030] The invention is not limited to the preferred implementation shown in Figs. 1A to 1C-11 and embodiments of the invention may use different implementations. In particular, implementations may not utilize all of the various combinations of modules shown in the

a3w. preferred implementation and/or may be scalable to allow functionality modules and/or software modules to be incrementally added as resources such as personnel and budgets permit. As an example, three different implementations of logistics system, preferably but not necessarily three different installation phases of the same logistics system are described in Figs. 39-42 in the provisional application.

a3 [0032] Although modules are shown separately in Figs. 1A to 1C-11, in some cases with different databases, the modules and the databases may or may not be hosted on a single computer system and may or may not be independent of each other. The logistics system may be centralized in one or relatively few locations or may be distributed throughout a relatively large number of locations. As will be made clear below, each physical shipment represents a plurality of different related work process flows, such as a shipment offer, a shipment acceptance, a customs clearance, in the logistics system. Preferably, the logistics system is a large volume logistics system with redundant modules running on multiple computer systems. For example, various databases shown as being separate in Figs. 1A to 1C-11 may be implemented in one large single partitioned database with different interfaces for each software module.
